

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A semiconductor device comprising:

an amplifying transistor;

a biasing transistor;

an amplifying side power source line;

a biasing side power source line;

a bias signal line;

an electric discharging transistor; and

an electric discharging power source line,

wherein a drain terminal of the amplifying transistor is connected to the amplifying side power source line, a source terminal of the biasing transistor is connected to the biasing side power source line, a source terminal of the amplifying transistor is connected to a drain terminal of the biasing transistor, a gate terminal of the biasing transistor is connected to the bias signal line, a gate terminal of the amplifying transistor serves as an input terminal, and a source terminal of the amplifying transistor serves as an output terminal,

wherein one of the output terminal and the electric discharging power source line is connected to a source terminal of the electric discharging transistor while the other thereof is connected to a drain terminal of the electric discharging transistor, and

wherein an absolute value of a voltage between a gate and a source of the biasing transistor is ~~equivalent to a minimum value of~~ higher than ~~an absolute value of a voltage between a gate and a~~

source that is necessary for making a threshold voltage of the biasing transistor into a conductive state.

2. (Previously presented) A device according to claim 1 further comprising a load capacitance wherein one terminal of the load capacitance is connected to the output terminal, and the other terminal of the load capacitance is connected to a load capacitance power source line.

3-7. (Canceled)

8. (Previously presented) A device according to claim 1, wherein when the semiconductor device has a plurality of biasing transistors, an absolute value of a voltage between a gate and a source of the plurality of biasing transistors is equivalent to a minimum value of an absolute value of a voltage between a gate and a source that is necessary for making the entire plurality of biasing transistors into a conductive state.

9. (Previously presented) A device according to claim 1, wherein the amplifying transistor, the biasing transistor, and the electric discharging transistor are transistors having the same polarity.

10. (Previously presented) A scanner, which uses the semiconductor device according to claim 1.

11. (Previously presented) A digital still camera, which uses the semiconductor device according to claim 1.

12. (Previously presented) An X-ray camera, which uses the semiconductor device according to claim 1.

13. (Previously presented) A portable information terminal, which uses the semiconductor device according to claim 1.

14. (Previously presented) A computer, which uses the semiconductor device according to claim 1.

15-34. (Canceled)

35. (Currently Amended) A driving method of a semiconductor device having an amplifying transistor, a biasing transistor, an amplifying side power source line, a biasing side power source line, and a bias signal line,

wherein a drain terminal of the amplifying transistor is connected to the amplifying side power source line, a source terminal of the biasing transistor is connected to the biasing side power source line, a source terminal of the amplifying transistor is connected to a drain terminal of the biasing transistor,

wherein a gate terminal of the biasing transistor is connected to the bias signal line, a gate terminal of the amplifying transistor serves as an input terminal, and a source terminal of the amplifying transistor serves as an output terminal,

wherein the driving method outputs a signal after performing a pre-discharge, and

wherein an absolute value of a voltage between a gate and a source of the biasing transistor is equivalent to ~~a minimum value of~~ higher than an absolute value of ~~a voltage between a gate and a source that is necessary for making~~ a threshold voltage of the biasing transistor ~~into a conductive state.~~

36. (Previously presented) A method according to claim 35 further comprising a load capacitance wherein one terminal of the load capacitance is connected to the output terminal, and the other terminal of the load capacitance is connected to a load capacitance power source line.

37-40. (Canceled)

41. (Previously presented) A method according to claim 35, wherein when the semiconductor device has a plurality of biasing transistors, an absolute value of a voltage between a gate and a source of the plurality of biasing transistor is equivalent to a minimum value of an absolute value of a voltage between a gate and a source that is necessary for making the entire plurality of biasing transistors into a conductive state.

42-56. (Canceled).

57. (Currently Amended) A driving method of a semiconductor device having an amplifying transistor, a biasing transistor, an amplifying side power source line, a biasing side power source line, and a bias signal line, an electric discharging transistor, and an electric discharging power source line,

wherein a drain terminal of the amplifying transistor is connected to the amplifying side power source line, a source terminal of the biasing transistor is connected to the biasing side power source line, a source terminal of the amplifying transistor is connected to a drain terminal of the biasing transistor, a gate terminal of the biasing transistor is connected to the bias signal line, a gate terminal of the amplifying transistor serves as an input terminal, a source terminal of the amplifying transistor serves as an output terminal, one of the output terminal and the electric discharging power source line is connected to a source terminal of the electric discharging transistor while the other thereof is connected to a drain terminal of the electric discharging transistor,

wherein the driving method outputs a signal after performing a pre-discharge by making the electric discharging transistor into a conductive state, and

wherein an absolute value of a voltage between a gate and a source of the biasing transistor is ~~equivalent to a minimum value of~~ higher than an absolute value of ~~a voltage between a gate and a source that is necessary for making~~ a threshold voltage of the biasing transistor ~~into a conductive state.~~

58. (Previously presented) A method according to claim 57, wherein a value of an electric potential of the electric discharging power source line takes a value that is between an electric potential of the bias signal line and an electric potential of the biasing side power source line.

59-88. (Canceled)

89. (New) A semiconductor device comprising:
an amplifying transistor;

a biasing transistor;
an amplifying side power source line;
a biasing side power source line;
a bias signal line;
an electric discharging transistor; and
an electric discharging power source line connected to the biasing side power source line,
wherein a drain terminal of the amplifying transistor is connected to the amplifying side power source line, a source terminal of the biasing transistor is connected to the biasing side power source line, a source terminal of the amplifying transistor is connected to a drain terminal of the biasing transistor, a gate terminal of the biasing transistor is connected to the bias signal line, a gate terminal of the amplifying transistor serves as an input terminal, and a source terminal of the amplifying transistor serves as an output terminal, and
wherein one of the output terminal and the electric discharging power source line is connected to a source terminal of the electric discharging transistor while the other thereof is connected to a drain terminal of the electric discharging transistor.

90. (New) A device according to claim 89 further comprising a load capacitance wherein one terminal of the load capacitance is connected to the output terminal, and the other terminal of the load capacitance is connected to a load capacitance power source line.

91. (New) A device according to claim 89, wherein when the semiconductor device has a plurality of biasing transistors, an absolute value of a voltage between a gate and a source of the plurality of biasing transistors is equivalent to a minimum value of an absolute value of a voltage

between a gate and a source that is necessary for making the entire plurality of biasing transistors into a conductive state.

92. (New) A device according to claim 89, wherein the amplifying transistor, the biasing transistor, and the electric discharging transistor are transistors having the same polarity.

93. (New) A scanner, which uses the semiconductor device according to claim 89.

94. (New) A digital still camera, which uses the semiconductor device according to claim 89.

95. (New) An X-ray camera, which uses the semiconductor device according to claim 89.

96. (New) A portable information terminal, which uses the semiconductor device according to claim 89.

97. (New) A computer, which uses the semiconductor device according to claim 89.

98. (New) A semiconductor device comprising:

an amplifying transistor;

a biasing transistor;

an amplifying side power source line;

a biasing side power source line;

a bias signal line;

an electric discharging transistor; and
an electric discharging power source line connected to the biasing side power source line,
wherein a drain terminal of the amplifying transistor is connected to the amplifying side power source line, a source terminal of the biasing transistor is connected to the biasing side power source line, a source terminal of the amplifying transistor is connected to a drain terminal of the biasing transistor, a gate terminal of the biasing transistor is connected to the bias signal line, a gate terminal of the amplifying transistor serves as an input terminal, and a source terminal of the amplifying transistor serves as an output terminal,

wherein one of the output terminal and the electric discharging power source line is connected to a source terminal of the electric discharging transistor while the other thereof is connected to a drain terminal of the electric discharging transistor, and

wherein an absolute value of a voltage between a gate and a source of the biasing transistor is higher than an absolute value of a threshold voltage of the biasing transistor.

99. (New) A device according to claim 98 further comprising a load capacitance wherein one terminal of the load capacitance is connected to the output terminal, and the other terminal of the load capacitance is connected to a load capacitance power source line.

100. (New) A device according to claim 98, wherein when the semiconductor device has a plurality of biasing transistors, an absolute value of a voltage between a gate and a source of the plurality of biasing transistors is equivalent to a minimum value of an absolute value of a voltage between a gate and a source that is necessary for making the entire plurality of biasing transistors into a conductive state.

101. (New) A device according to claim 98, wherein the amplifying transistor, the biasing transistor, and the electric discharging transistor are transistors having the same polarity.

102. (New) A scanner, which uses the semiconductor device according to claim 98.

103. (New) A digital still camera, which uses the semiconductor device according to claim 98.

104. (New) An X-ray camera, which uses the semiconductor device according to claim 98.

105. (New) A portable information terminal, which uses the semiconductor device according to claim 98.

106. (New) A computer, which uses the semiconductor device according to claim 98.